

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A 3-dimensional image creating apparatus comprising:
a primary image creator for creating a primary image ~~of~~ including image information for multiple viewpoints;
a thumbnail image creator for creating a thumbnail image;
a 3-dimensional control information creator for creating 3-dimensional control information for implementing 3-dimensional display of the primary image; and
a multiplexer for multiplexing the primary image, the thumbnail image and the 3-dimensional control information.

2. (Original) The 3-dimensional image creating apparatus according to Claim 1, wherein the thumbnail image creator creates the thumbnail image by directly reducing the primary image.

3. (Original) The 3-dimensional image creating apparatus according to Claim 1, wherein the thumbnail image creator creates the thumbnail image by extracting a section of one viewpoint image from the primary image.

4. (Original) The 3-dimensional image creating apparatus according to Claim 1, wherein the thumbnail image creator embeds a symbol that indicates an inclusion of a 3-dimensional image into the thumbnail image.

5. (Original) The 3-dimensional image creating apparatus according to Claim 1, wherein the thumbnail image creator creates the thumbnail image made up of a reduced image of the primary image and a reduced image of one viewpoint image extracted from the primary image and fitted therein in a picture-in-picture manner.

6. (Original) A 3-dimensional image reproducing apparatus, comprising:
a demultiplexer for separating a primary image data, a thumbnail data and a 3-dimensional control information from an input image data; and

a thumbnail creator for outputting a thumbnail with a symbol that indicates an inclusion of a 3-dimensional image overlaid on the thumbnail data when the primary image data represents a 3-dimensional image.

7. (Withdrawn) A 3-dimensional image processing apparatus, comprising:

a parallax range acquisition means for acquiring a parallax range suitable for a stereoscopic view;

a parallax quantity acquisition means for acquiring a parallax quantity of a 3-dimensional image;

a decision means for deciding whether the parallax quantity of the 3-dimensional image falls within the parallax range; and

a warning means for warning a user,
wherein the warning means warns the user when the decision means determines that the parallax quantity falls out of the parallax range.

8. (Withdrawn) A 3-dimensional image processing apparatus, comprising:

a parallax range acquisition means for acquiring a parallax range suitable for a stereoscopic view;

a parallax quantity acquisition means for acquiring a parallax quantity of a 3-dimensional image;

a ratio acquisition means for acquiring a ratio for enlargement or reduction of the 3-dimensional image;

a decision means for deciding whether the parallax quantity of the 3-dimensional image falls within the parallax range;

a parallax adjustment means for adjusting the parallax quantity of the 3-dimensional image; and

a designating means for designating an observable point for adjustment of the parallax quantity,

wherein the parallax adjustment means adjusts the parallax quantity giving priority to an area around the observable point when the decision means determines that the parallax quantity falls out of the parallax range.

9. (Withdrawn) The 3-dimensional image processing apparatus according to Claim 7 or 8, further comprising a magnification ratio selecting means for displaying an enlarged or reduced view of the 3-dimensional image, wherein the decision means determines whether the parallax quantity of the 3-dimensional image that has been enlarged or reduced based on a selected magnification ratio falls within the parallax range.

10. (Withdrawn) The 3-dimensional image processing apparatus according to Claim 7 or 8, wherein the decision means makes a deciding process based on a partial area of the 3-dimensional image.

11. (Canceled)

12. (Withdrawn) The 3-dimensional image processing apparatus according to Claim 7 or 8, wherein the parallax quantity acquisition means uses a resolution of a stereoscopic display for displaying the 3-dimensional image, a size of a stereoscopic display for displaying the 3-dimensional image, or a resolution and size of a stereoscopic display for displaying the 3-dimensional image.

13. (Withdrawn) The 3-dimensional image processing apparatus according to Claim 7 or 8, wherein the parallax range acquisition means uses a capability of separating left and right images of a stereoscopic display for displaying the 3-dimensional image.

14. (Withdrawn) The 3-dimensional image processing apparatus according to Claim 7 or 8, wherein the parallax quantity acquisition means uses data previously tagged to the 3-dimensional image.

15. (Withdrawn) A 3-dimensional image processing program characterized by making a computer function as a parallax range acquisition means for acquiring a parallax range suitable for a stereoscopic view; a parallax quantity acquisition means for acquiring a parallax quantity of a 3-dimensional image; a decision means for deciding whether the parallax quantity of the 3-dimensional image falls within the parallax range; and a warning means for warning a user, wherein the warning means warns the user when the decision means determines that the parallax quantity falls out of the parallax range.

16. (Withdrawn) A 3-dimensional image processing program characterized by making a computer function as a parallax range acquisition means for acquiring a parallax range suitable for a stereoscopic view; a parallax quantity acquisition means for acquiring a parallax quantity of a 3-dimensional image; a decision means for deciding whether the parallax quantity of the 3-dimensional image falls within the parallax range; a parallax adjustment means for adjusting the parallax quantity of the 3-dimensional image; and a designating means for designating an observable point for adjustment of the parallax quantity, wherein the parallax adjustment means adjusts the parallax quantity giving priority to an area around the observable point when the decision means determines that the parallax quantity falls out of the parallax range.

17. (Withdrawn) The 3-dimensional image processing program according to Claim 15 or 16, characterized by making a computer further function as a magnification ratio selecting means for displaying an enlarged or reduced view of the 3-dimensional image, wherein the decision means determines whether the parallax quantity of the 3-dimensional image that has been enlarged or reduced based on a selected magnification ratio falls within the parallax range.

18. (Withdrawn) The 3-dimensional image processing program according to Claim 16, wherein the decision means makes a deciding process based on a partial area of the 3-dimensional image.

19. (Canceled)

20. (Withdrawn) The 3-dimensional image processing program according to Claim 16, wherein the parallax quantity acquisition means uses a resolution a stereoscopic display for displaying the 3-dimensional image, a size of a stereoscopic display for displaying the 3-dimensional image, or a resolution and size of a stereoscopic display for displaying the 3-dimensional image.

21. (Withdrawn) The 3-dimensional image processing program according to Claim 16, wherein the parallax range acquisition means uses the capability of separating the left and right images of a stereoscopic display for displaying the 3-dimensional image.

22. (Withdrawn) The 3-dimensional image processing program according to Claim 16, wherein the parallax quantity acquisition means uses data previously tagged to the 3-dimensional image.

23. (Withdrawn) A computer readable recording medium having a program according to Claim 15 or 16 recorded therein.

24. (Currently amended) A 3-dimensional image creating apparatus comprising:
a primary image creator for creating a primary image ~~of~~ including image information for multiple viewpoints;
a thumbnail image creator for creating a thumbnail image;
a 3-dimensional control information creator for creating 3-dimensional control information for implementing 3-dimensional display of the primary image wherein the 3-dimensional control information includes the number of viewpoints, the image placement order, the image placement mode, 2D select, and the presence or absence of joining and reduction; and
a multiplexor for multiplexing the primary image, the thumbnail image and the 3-dimensional control information.

25. (Previously presented) The 3-dimensional image creating apparatus according to Claim 24, wherein the thumbnail image creator creates the thumbnail image by directly reducing the primary image.

26. (Previously presented) The 3-dimensional image creating apparatus according to Claim 24, wherein the thumbnail image creator creates the thumbnail image by extracting a section of one viewpoint image from the primary image.

27. (Previously presented) The 3-dimensional image creating apparatus according to Claim 24, wherein the thumbnail image creator embeds a symbol that indicates an inclusion of a 3-dimensional image into the thumbnail image.

28. (Previously presented) The 3-dimensional image creating apparatus according to Claim 24, wherein the thumbnail image creator creates the thumbnail image made up of a reduced image of the primary image and a reduced image of one viewpoint image extracted from the primary image and fitted therein in a picture-in-picture manner.

29. (Previously presented) The 3-dimensional image reproducing apparatus according to Claim 6, wherein the 3-dimensional control information includes the number of viewpoints, the image placement order, the image placement mode, 2D select, and the presence or absence of joining and reduction.